

**AMENDMENT TO THE CLAIMS:**

Claims 15, 17, 20, 37, 39 and 40 have been amended as follows:

Underlines indicate insertions and ~~strikeouts~~ indicate deletions.

**Listing of Claims:**

Claims 1-5 (cancelled)

Claim 6 (withdrawn) A method of detecting and/or assessing Annexin-based MDR in a sample comprising: a) contacting said sample with an isolated nucleic acid molecule consisting of 10 to 50 nucleotides specifically hybridizing to RNA and/or DNA encoding an Annexin, wherein said nucleic acid molecule is or is complementary to a nucleotide sequence consisting of at least 10 consecutive nucleotides from the nucleic acid sequence of one of Annexin I to XI, under hybridization conditions; and b) detecting the presence of said molecule bound to Annexin nucleic acid.

Claim 7 (withdrawn) A kit for detecting and/or quantifying an Annexin nucleic acid in a sample comprising at least one container means having disposed therein an isolated nucleic acid molecule consisting of 10 to 50 nucleotides specifically hybridizing to RNA and/or DNA encoding an Annexin, wherein said nucleic acid molecule is or is complementary to a nucleotide sequence 15 consisting of at least 10 consecutive nucleotides from the nucleic acid sequence of one of Annexin I to XI.

Claims 8-14 (cancelled)

Claim 15 (currently amended) A method of identifying a compound that ~~directly decreases Annexin-based multidrug resistance (MDR) in a cell having been rendered MDR by an expression of an Annexin,~~ comprising:

- a) incubating a cell expressing Annexin ~~said cell with a drug to which said cell is resistant~~ in the presence or absence of a candidate compound; and
- b) assessing the effect of said candidate compound on ~~the resistance of said cell to said drug Annexin's expression;~~

wherein a candidate compound is selected, when the resistance of said cell to said drug Annixin's expression is measurably lower in the presence of said compound as compared to in the absence thereof.

Claim 16 (cancelled)

Claim 17 (currently amended) The method of claim 15, wherein said compound is selected from the group consisting of a nucleic acid molecule encoding an Annexin variant, or a part thereof, an Annexin antisense molecule, a dominant negative mutant of an Annexin, a mutant Annexin, an antibody to Annexin, and a peptide, and a small molecule.

Claim 18 (previously presented) The method of claim 17, wherein said candidate compound is an Annexin I antisense nucleic acid.

Claim 19 (cancelled)

Claim 20 (currently amended) A method of directly decreasing Annexin-based MDR in a cell having been rendered MDR by an expression of an Annexin comprising: administering thereto an effective amount of a compound selected from the group consisting of a nucleic acid molecule, a dominant negative mutant of an Annexin, a mutant Annexin protein, an antibody to Annexin, a peptide, and a small molecule inhibiting Annexin's expression, whereby said effective amount of said compound decreases Annexin-based MDR in said cell.

Claim 21 (previously presented) The method of claim 20, wherein said Annexin-based MDR is Annexin I-based.

Claim 22 (previously presented) The method of claim 21, wherein said compound is an Annexin I antisense nucleic acid.

Claim 23 (previously presented) The method of claim 21, wherein said compound is a calcium chelator or a calcium channel blocker.

Claim 24 (withdrawn) A pharmaceutical composition for reducing MDR in a cell comprising an Annexin-based MDR affecting compound together with a pharmaceutically acceptable carrier.

Claim 25 (withdrawn) The pharmaceutical composition of claim 24, wherein said Annexin-based MDR is Annexin I-based, and said compound is an Annexin I-based MDR affecting compound.

Claim 26 (withdrawn) A method of diagnosing the presence or predisposition of Annexin-based MDR in a patient comprising:

- a) taking a sample from said patient;
- b) determining the amount of Annexin protein and/or nucleic acid in said sample;
- c) diagnosing the presence or predisposition of Annexin-based MDR in said patient, wherein an increased amount of said Annexin protein and/or nucleic acid in said sample as compared to a control sample indicates the presence or predisposition towards Annexin-based MDR.

Claim 27 (withdrawn) The method of claim 26, wherein said Annexin-based MDR is Annexin I-based and said determining is a determination of Annexin I protein and/or nucleic acid.

Claims 28-29 (canceled)

Claim 30 (withdrawn) A method of rendering a cell antidrug resistant comprising administering thereto an Annexin-based MDR inducing nucleic acid molecule, said nucleic acid molecule encoding an Annexin family member, thereby inducing said Annexin-based MDR in said cell.

Claim 31 (withdrawn) The method of claim 30, wherein said nucleic acid molecule comprises a nucleic acid sequence which is at least 90% identical to a sequence selected from the group consisting of a nucleotide sequence encoding an Annexin polypeptide selected from Annexin I to Annexin XI, or a nucleotide sequence complementary thereto.

Claim 32 (previously presented) A method of conferring drug resistance to a cell, comprising an increase in the expression of an Annexin protein, whereby said increased expression is capable of conferring MDR in said cell.

Claim 33 (previously presented) The method of claim 32, wherein said Annexin protein is Annexin I.

Claims 34 - 35 (canceled)

Claim 37 (currently amended) A method of identifying a compound that ~~directly increases Annexin-based multidrug resistance (MDR) in a cell having been rendered MDR by an expression of an Annexin,~~ comprising:

- a) incubating ~~a cell expressing Annexin~~ ~~said cell with a drug to which said cell is resistant~~ in the presence or absence of a candidate compound; and
- b) assessing the effect of said candidate compound on ~~the resistance of said cell to said drug Annexin's expression;~~

wherein a candidate compound is selected, when ~~Annexin's expression~~ ~~the resistance of said cell to said drug~~ is measurably higher in the presence of said compound as compared to in the absence thereof.

Claim 38 (canceled)

Claim 39 (previously presented) A method of directly increasing Annexin-based MDR in a cell having been rendered MDR by an expression of an Annexin comprising: administering thereto an effective amount of a compound ~~increasing Annexin's expression in said cell, selected from the group consisting of a nucleic acid molecule, a dominant positive mutant of an Annexin, a mutant Annexin protein and a peptide, and a small molecule~~ whereby said effective amount of said compound increases Annexin-based MDR in said cell.

Claim 40 (currently amended) The method of claim ~~37~~ 38, wherein said Annexin-based MDR is Annexin I-based.

**Appn. No. 09/529,925**  
**Amendment Dated July 23, 2003**  
**Reply to Office Action of January 23, 2003**

Claim 41 (new)      The method of claim 20, wherein said compound is selected from the group consisting of a nucleic acid molecule, a mutant Annexin protein, an antibody to Annexin, and a peptide.

Claim 42 (new)      The method of claim 39, wherein said compound is selected from the group consisting of a nucleic acid molecule, a mutant Annexin protein, an antibody to Annexin, and a peptide.